**Clinical and procedural characteristics and in-hospital complications**

| Variable | Commercial Valve (n=37) | Cohort B (n=54) | p value |
|---|---|---|---|
| Mean age (years±SD) | 83±8 | 83±7 | 0.87 |
| Dialysis | 11% | 0 | 0.04 |
| Conscious sedation | 81% | 56% | 0.02 |
| Planned surgical cut down | 4% | 85% | <0.001 |
| VARC major vascular complication | 5% | 22% | 0.14 |
| VARC life threatening bleed | 9% | 13% | 0.69 |
| Transfusion rates | 27% | 59% | 0.007 |
| Stroke | 8% | 11% | 1 |
| In-hospital mortality | 2 | 0 | 0.1 |

## Closure of Valve Leaks

## CRT-139

### A Single Center Experience Of Percutaneous Transcatheter Closures Of Paravalvular Leaks

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**Background:** Percutaneous transcatheter closure of Paravalvular leaks is a new alternative approach to re-do surgery, which is associated with considerable mortality and morbidity. We aim to evaluate feasibility and short term results with this novel closure technique.
**Methods:** Between May 2007 and September 2011. 16 symptomatic patients (seven males, nine females; mean age 59.1 ± 17.9 years) with heart failure (n=9 ), hemolytic anemia (n=2) or both (n=5) underwent percutaneous PVL closure at our center. Most patients were high risk for open surgical repair (STS score 7.64 ± 8.02) with average number of sternotomies equal to 2.3 (range 0-4). Both left and right sided valves were intervened upon including Mitral valves (n=10), Aortic valves (n=5), one of which was a trans-catheter placed Sapien Valve, Pulmonic valves ( n=1). The procedure was done under echocardiographic and fluoroscopic guidance using the Amplatzer Septal Occluder, Duct Occluder or Vascular Plug II.
**Results:** Successful percutaneous repair was achieved in 12 out of 16 patients (75%). Failure to cross the leak with either the wire or the catheter occurred in two patients. In the other two patients, device was deployed with residual moderate regurgitation. There were no procedural or unexplained death, but there were two post procedural deaths, one patient had severe septic shock and the other had cardiogenic shock prior to intervention. No emergency surgery or device embolization occurred .One patient had an ischemic stroke in the fifth post-operative day. One patient with multiple defects and a failed attempt required an elective surgical repair to seal the leak.
**Conclusions:** Percutaneous transcatheter closure of paravalvular leaks is feasible but appears to be technically demanding procedure with acceptable success rate especially in poor surgical candidate. Further experience is warranted to evaluate long term morbidity and mortality.

## CRT-140

### Percutaneous Mitral Valve Repair with MitraClip Restores Exercise Capacity in Patients with Symptomatic Severe Functional Mitral Regurgitation who are Not Surgical Candidates

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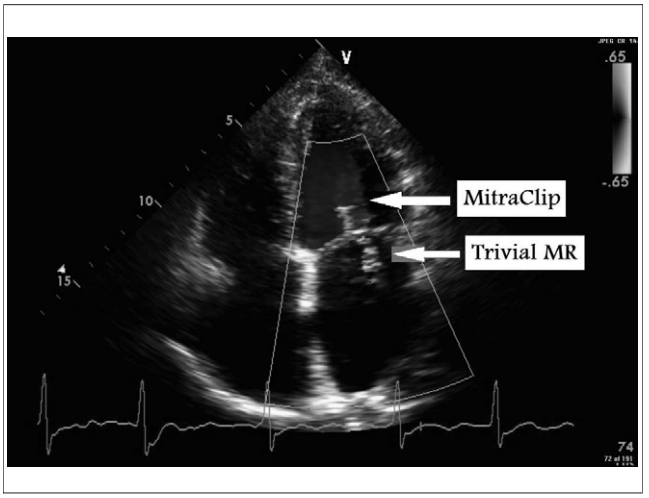
**Introduction:** Functional Mitral Regurgitation (FMR) may cause Heart Failure (HF). Cardiac surgery for open correction of FMR in patients with severely impaired left ventricular ejection fraction (LVEF) or prior cardiac surgery entails higher risk. The EVEREST II Trial in patients who were surgical candidates for mitral valve repair showed outcomes of percutaneous repair using the MitraClip were comparable with surgery.
**Hypothesis:** We hypothesized that MitraClip is safe and effective in patients with severe FMR and HF who are not surgical candidates.
**Methods:** We identified 4 patients with significant FMR and limited exercise capacity due to HF. Significant ischemia was excluded with functional imaging. Surgical risk was deemed prohibitive. Mitral valve anatomy was assessed by transthoracic (TTE) and transesophageal echocardiography.
**Patients:** One patient was female, 2 had AF, 3 had prior remote coronary artery bypass graft surgery, and the 4th had non-ischemic cardiomyopathy. Age was 59 ± 11 years, BSA 1.7 ± 0.1 m2, GFR 57.5 ± 46.9mls/min, Hemoglobin 11.2 ± 1.4g/dL. NYHA 2.75 ± 0.5, LVEF 30 ± 17%, MR grade 3.75 ± 0.5, Six-Minute Walk Distance (6MWD) 208 ± 132m, and Euroscore risk for cardiac surgery 32.9 ± 26.9%.
**Results:** All patients underwent successful MitraClip procedures without complication. Three patients used 1 clip, while 1 patient required 2 clips. MR grade was reduced to 1.25 ± 0.5 and patients were discharged 2.25 ± 0.96 days post MitraClip. Follow-up TTEs show durability of MR reduction (Fig 1.). 6MWD improved to 423 ± 92m (p=0.037). Two patients have resumed working, and all can participate in normal activities of daily living. They remain on standard pharmacotherapy for heart failure.
**Conclusion:** In conclusion, MitraClip is safe and effective in restoring exercise capacity in selected patients with severe FMR and HF who are not surgical candidates.




VALVE & STRUCTURAL HEART